

**REMARKS**

The December 16, 2009 Office Action was based on pending Claims 3-12 and 23-26. This amendment amends Claims 3-7 and 9-12, adds new Claim 27, and cancels Claim 8 without prejudice or disclaimer. Claims 1, 2 and 13-22 were previously withdrawn. Thus, after entry of this Amendment, Claims 3-7, 9-12 and 23-27 are pending and presented for further consideration.

**RESPONSE TO OBJECTION TO THE DRAWINGS**

The Office Action objected to the drawings because the handwriting is difficult to read. An amended set of drawings is being submitted herewith to address this issue.

The Office Action stated that the drawings are also objected to under 37 C.F.R. § 1.83(a) because while “[t]he drawings disclose a plurality of circuits receiving a precharge or predischarge signal,” “the drawings do not show any circuit generating a precharge or predischarge signal.” Thus, the Office Action stated that the “predischarged logic cell” feature of Claim 4, the “differential dynamic logic register configured to generate a pre-charge wave” feature of Claims 5-6, 10 and 12, and the “precharge generator” feature of Claim 8 “must be shown or the feature(s) canceled from the claims.”

Applicants traverse these objections to the drawings. However, Applicants note that Claim 8 has been canceled without prejudice or disclaimer and the objection to the drawings related to this Claim 8 is therefore moot. Additionally, Applicants have amended Claims 4-6, 10 and 12 to clarify the scope of the claims, and respectfully submit that the drawings comply with 37 C.F.R. § 1.83(a) vis-à-vis amended Claims 4-6, 10 and 12. For example, embodiments of the features of amended Claims 4-6, 10 and 12 referenced by the Office Action are shown in Figures 3, 4, and 7.

**REJECTION OF CLAIMS 3-12 AND 23-26 UNDER 35 U.S.C. § 102(b)**

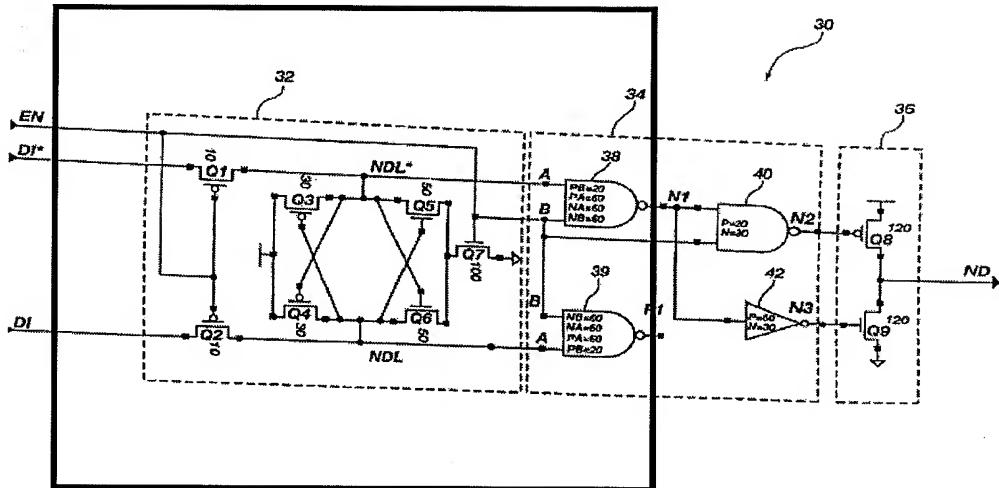
The Office Action rejected Claims 3-12 and 23-26 under 35 U.S.C. § 102(b) as being anticipated by Morzano (U.S. Publication 2001/0046169). Applicants traverse the § 102(b) rejections of the claims, but have amended independent Claims 3-12 to expedite prosecution. The claims have been amended in order to clarify the features of

Applicants' inventions and are not amended for patentability purposes. Applicants additionally traverse the characterization of the pending claims, and each and every implicit and/or explicit official notice.

Claim 3

Amended Claim 3 is substantially different from Morzano. Amended Claim 3 is directed towards a Wave Dynamic Differential Logic (WDDL) comprising a differential logic cell having inverted inputs and corresponding non-inverted inputs. The differential logic cell is configured to provide one or more inverted logic outputs and corresponding one or more non-inverted logic outputs. The differential logic cell is configured to receive a precharge wave and/or a predischarge wave on the inverted inputs and non-inverted inputs and to propagate said precharge wave and/or said predischarge wave from said inverted inputs and corresponding non-inverting inputs to said inverted logic outputs and said non-inverted logic outputs. One advantage of certain embodiments of WDDL is that a pre-charge wave and/or a pre-discharge wave can be propagated from one WDDL differential logic cell to the next WDDL differential logic cell, without distributing a separate pre-charge signal to the individual WDDL differential logic cells.

In contrast, Morzano is directed towards a voltage differential sensing circuit. Morzano, Abstract. Figure 2 of Morzano, relied upon by the Office Action, is shown below. The bold-line box has been added to show the portion of Figure 2 relied upon by the Office Action.



The "EN" signal of Morzano is not a "precharge wave and/or predischarge wave" within the meaning of Claim 3 and, to the extent that the "EN" signal of Morzano may pre-charge the Morzano circuit, each instance of the Morzano circuit requires a separate "EN" signal.

As such, among other things, Morzano does not teach or render obvious, "a differential logic cell configured to receive a precharge wave and/or predischarge wave on the inverted inputs and non-inverted inputs and to propagate said precharge wave and/or a predischarge wave from said inverted inputs and corresponding non-inverting inputs to said inverted logic outputs and said non-inverted logic outputs."

For at least these reasons, Applicants respectfully submit that Claim 3 is patentably distinguished over Morzano.

#### Claim 4

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious "a pre-discharged logic cell configured to receive a pre-discharge signal and, in response to said pre-discharge signal, to generate a pre-discharge wave to pre-discharge and propagate through said differential logic cell from said inverted inputs and non-inverted inputs to said inverted logic outputs and non-inverted logic outputs and/or a precharged logic cell configured to receive a

precharge signal and, in response to said precharge signal, to generate a precharge wave to pre-charge and propagate through said differential logic cell from said inverted inputs and non-inverted inputs to said inverted logic outputs and non-inverted logic outputs.”

For at least these reasons, Applicants respectfully submit that Claim 4 is patentably distinguished over Morzano.

**Claim 5**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious “a master-slave differential dynamic logic register configured to receive a precharge signal and, in response to said precharge signal, to generate a pre-charge wave to pre-charge and propagate through said differential logic cell from said inverted inputs and non-inverted inputs to said inverted logic outputs and non-inverted logic outputs.”

For at least these reasons, Applicants respectfully submit that Claim 5 is patentably distinguished over Morzano.

**Claim 6**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious “a master-slave differential dynamic logic register configured to receive a pre-discharge signal and, in response to said pre-discharge signal, to generate a pre-discharge wave in response to said pre-discharge signal to pre-discharge and propagate through said differential logic cell from said inverted inputs and non-inverted inputs to said inverted logic outputs and non-inverted logic outputs.”

For at least these reasons, Applicants respectfully submit that Claim 6 is patentably distinguished over Morzano.

**Claim 7**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious “said first logic tree and said dual of said first

logic tree further configured to, during a precharge and/or pre-discharge phase, receive a precharge wave and/or a pre-discharge wave on said first logic tree inputs and said dual logic tree inputs and propagate said precharge wave and/or pre-discharge wave to said first logic tree outputs and said dual logic tree outputs."

For at least these reasons, Applicants respectfully submit that Claim 7 is patentably distinguished over Morzano.

**Claim 8**

As indicated above, Claim 8 has been cancelled without prejudice or disclaimer and the § 102(b) rejection of this claim is therefore moot. Applicants specifically reserve the right to pursue the originally filed claims in this Application or in a related application.

**Claim 9**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious "the differential logic cell further configured to receive the precharge wave on said inverted inputs and non-inverted inputs and to propagate said pre-charge wave from said inverted inputs and corresponding non-inverting inputs to said inverted logic outputs and said non-inverted logic outputs."

For at least these reasons, Applicants respectfully submit that Claim 9 is patentably distinguished over Morzano.

**Claim 10**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious "the differential logic cell further configured to receive the precharge wave on said inverted inputs and non-inverted inputs and to propagate said pre-charge wave from said inverted inputs and corresponding non-inverting inputs to said inverted logic outputs and said non-inverted logic outputs."

For at least these reasons, Applicants respectfully submit that Claim 10 is patentably distinguished over Morzano.

**Claim 11**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious "the differential logic cell further configured to receive the pre-discharge wave on said inverted inputs and non-inverted inputs and to propagate said pre-discharge wave from said inverted inputs and corresponding non-inverting inputs to said inverted logic outputs and said non-inverted logic outputs."

For at least these reasons, Applicants respectfully submit that Claim 11 is patentably distinguished over Morzano.

**Claim 12**

For at least reasons similar to those discussed above with respect to Claim 3, Morzano does not teach or render obvious "the differential logic cell further configured to receive the pre-discharge wave on said inverted inputs and non-inverted inputs and to propagate said pre-discharge wave from said inverted inputs and corresponding non-inverting inputs to said inverted logic outputs and said non-inverted logic outputs."

For at least these reasons, Applicants respectfully submit that Claim 12 is patentably distinguished over Morzano.

**Dependent Claims 23-26**

Dependent Claims 23-36 are believed to be patentable for the same reasons articulated above with respect to their respective independent claims. Dependent Claims 23-26 are also believed to be patentable because of the additional features recited therein.

**New Dependent Claim 27**

New dependent Claim 27 has been added to further define Applicants inventions and is believed to be patentable for the same reasons articulated above with respect to their respective independent claims. Dependent Claim 27 is also believed to be patentable because of the additional features recited therein.

**Application No.: 10/586,846**  
**Filing Date: July 20, 2006**

**NO DISCLAIMERS OR DISAVOWALS**

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application.

Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution.

Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

**OTHER APPLICATIONS OF ASSIGNEE**

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee:

Docket No.	Serial No.	Title	Filed
UCLARF.003DV1	12/191,144	Dynamic and Differential CMOS Logic With Signal-Independent Power Consumption to Withstand Differential Power Analysis	August 13, 2008
UCLARF.003NP	10/565,551	Dynamic and Differential CMOS Logic With Signal-Independent Power Consumption to Withstand Differential Power Analysis	September 11, 2006
UCLARF.008NP	12/092,687	Methods and Apparatus for Context-Sensitive Telemedicine	October 29, 2008
UCLARF.010A	12/167,062	Signal Decoder With General Purpose Calculation Engine	July 2, 2008

**CONCLUSION / REQUEST FOR TELEPHONE INTERVIEW**

In view of the foregoing amendments and remarks, Applicants respectfully request that the Examiner withdraw the outstanding rejections and allow the present

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application. If any issues arise during examination, the Examiner is invited to call the undersigned representative at his direct dial number listed below.

By focusing on specific claims and claim recitations in the discussion above, Applicants do not intend to imply that other claim recitations are disclosed or rendered obvious by the art of record.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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